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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,324	07/17/2003	Sreedhar Sannareddy Reddy	P8008	4325

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EXAMINER

NAHAR, QAMRUN

ART UNIT	PAPER NUMBER
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2191

MAIL DATE	DELIVERY MODE
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06/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/622,324	REDDY ET AL.	
	Examiner	Art Unit	
	Qamrun Nahar	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 03/19/2007.
2. The objections to the specification are withdrawn in view of applicant's amendment.
3. The objection to claim 1 is moot in view of applicant's amendment.
4. The rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention to claims 1-18 is moot in view of applicant's amendment.
5. The rejection under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter to claims 1-8 is moot in view of applicant's amendment.
6. The rejection under 35 U.S.C. 102(e) as being anticipated by Linton et al. (US 2004/0015822) (hereinafter "Linton") to claims 1-18 is moot in view of applicant's amendment.
7. Claims 1-18 have been canceled.
8. Claims 19-28 have been added.
9. Claims 19-28 are pending.

Response to Amendment

Claim Objections

10. Claim 19 is objected to because of the following informalities: "comprising;" on line 2 of the claim should be "comprising:". Appropriate correction is required.
11. Claim 24 is objected to because of the following informalities: "comprising the steps of;" on line 2 of the claim should be "comprising the steps of:". Appropriate correction is required.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 19-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. Claim 19 recites the limitation "the notion" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "notion".

Claims 20-23 are rejected for dependency upon rejected base claim 19 above.

15. Claim 19 recites the limitation "the semantics" in line 11 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "semantics".

Claims 20-23 are rejected for dependency upon rejected base claim 19 above.

16. Claim 19 recites the limitation "the completeness" in line 12 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "completeness".

Claims 20-23 are rejected for dependency upon rejected base claim 19 above.

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17. Claim 24 recites the limitation "the notion" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "notion".

Claims 25-28 are rejected for dependency upon rejected base claim 24 above.

18. Claim 24 recites the limitation "the semantics" in line 12 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "semantics".

Claims 25-28 are rejected for dependency upon rejected base claim 24 above.

19. Claim 24 recites the limitation "the completeness" in lines 12-13 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "completeness".

Claims 25-28 are rejected for dependency upon rejected base claim 24 above.

Claim Rejections - 35 USC § 101

20. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

21. Claims 19-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Claim 19 appears to be software means alone, functional descriptive material, per se, lacking the necessary physical components (hardware) to constitute a machine or a manufacture under 101. Since claim 19 is clearly not a process or a composition of matter, it appears to fail to fall within a statutory category and thus non-statutory.

Claims 20-23 are rejected for failing to cure the deficiencies of the above rejected non-statutory claim 19 above.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 19-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linton et al. (US 2004/0015822) (hereinafter "Linton") in view of Brunner (U.S. 5,550,971).

Per Claim 19:

Linton teaches a component means for containing objects associations and properties ("Each *element* 402 is comprised of a multiplicity of attributes 404 and behaviors 407." in par. 0050, lines 8-9); said component means having a mechanism for versioning ("elements typically have additional functions and data to identify each element instance (such as a *globally unique identification*).” in par. 0058, lines 4-6); the component further having means to create a tree of component versions; with further means to support change isolation ("Elements may have a

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containment, or *parent-child relationship with sub-elements*. ..." in par. 0055, lines 10-12); and a configuration as a unit for assembling component versions providing a binding context for associations between objects contained in the assembled component versions; the configuration having means to interpret the semantics of association ownership to determine the completeness and compatibility of assembled component versions ("The *element container* 316 contains a multiplicity of instances of elements 317 ... " in par. 0049, lines 2-4; and "... all actions 409 implement the same interface (this includes the possibility of subclassing the action interface.) Thus, all actions 409 have the same base type, but are of differing classes. This allows the container application to use any action 409 of any element 404 without any predetermined knowledge of its functionality, since the interfaces are identical and well known." in par. 0053, lines 1-8). However, Linton does not explicitly teach a modeling means in which associations are augmented with the notion of ownership. Brunner teaches a modeling means in which associations are augmented with the notion of ownership (column 5, lines 37-45; and column 5, line 51 to column 6, line 9).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the software tool disclosed by Linton to include a modeling means in which associations are augmented with the notion of ownership using the teaching of Brunner. The modification would be obvious because one of ordinary skill in the art would be motivated to modify an underlying model in order to dynamically reflect the change in the software without the need to recode and recompile the software (Brunner, column 2, lines 30-39).

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Per Claim 20:

The rejection of claim 19 is incorporated, and Linton further teaches wherein the version mechanism of the component is flexible to permit a user to include a plurality of objects as determined by the user (par. 0050, lines 21-23).

Per Claim 21:

The rejection of claim 19 is incorporated, and Linton further teaches wherein configuration includes means to track configuration evolution history (par. 0057, lines 1-7).

Per Claim 22:

The rejection of claim 19 is incorporated, and Linton further teaches in which a facility is provided to track component version evolution history (par. 0057, lines 1-7).

Per Claim 23:

The rejection of claim 19 is incorporated, and Brunner further teaches having means to support a plurality of models and meta models (column 5, lines 37-45; and column 5, line 51 to column 6, line 9).

Per Claims 24-28:

These are method versions of the claimed software tool discussed above (claims 19-23, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Response to Arguments

24. Applicant's arguments with respect to claims 19-28 have been considered but are moot in view of the new ground(s) of rejection.

In the remarks, the applicant argues that:

a) Further, the 'component' construct as taught in the present invention is not to be confused with the concept of software components which are units of behavior with interfaces and programmatic implementations, as in the art of Linton. A component in the present invention, is merely a grouping construct that is used for grouping an arbitrary set of model elements. The invention presents a mechanism that uses association ownership semantics to address the configuration management issues of version compatibility and configuration completeness.

Examiner's response:

a) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "A component in the present invention, is merely a grouping construct that is used for grouping an arbitrary set of model elements.") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In the remarks, the applicant argues that:

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b) The examiner seems to compare the association ownership teaching of applicant's invention with the parent-child relationship as taught in Linton. These are not the same. The teaching of association in applicant's invention is generic as it can be used for modeling any kind of relationship, and the semantics of ownership are orthogonal to the semantics of parent-child relationship.

For example, in a parent-child relationship, deletion of parent implies deletion of all children. No such thing is implied by our notion of 'ownership'. The balance of the art, and the published papers provided by the Examiner also pertains to the world of programs and program components. None of them present techniques that can deal with the issues of completeness and compatibility at a generic level that is applicable to all kinds of models as taught and claimed in the present invention.

Examiner's response:

b) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "The teaching of association in applicant's invention is generic as it can be used for modeling any kind of relationship, and the semantics of ownership are orthogonal to the semantics of parent-child relationship. ... For example, in a parent-child relationship, deletion of parent implies deletion of all children. No such thing is implied by our notion of 'ownership'") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

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USPQ2d 1057 (Fed. Cir. 1993). That is, applicant has failed to particularly claim the modeling aspects of the present invention.

Conclusion

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

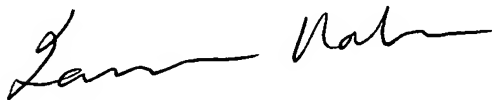
26. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Qamrun Nahar
June 4, 2007

